

What is claimed is:

1. A method of detachably mounting a rotating tool provided with an attachment portion having a cylindrical inner circumferential surface to a mounting portion having a cylindrical outer circumferential surface of a spindle, comprising the steps of:

making the inner diameter at normal temperatures of the attachment portion smaller than the outer diameter at normal temperatures of the mounting portion; and

- heating the attachment portion and/or cooling the mounting portion to make the inner diameter of the attachment portion larger than the outer diameter of the mounting portion so as to fit the attachment portion onto the mounting portion.

2. The method of claim 1, wherein at least the mounting portion of the spindle is made of metal.

3. The method of claim 1, wherein at least the attachment portion of the rotating tool is made of metal.

4. The method of claim 1, wherein the rotating tool comprises a metal hub and a thin annular cutting blade secured to the hub, the hub being provided with the attachment portion and the cutting blade containing diamond grains.

5. A method of detachably mounting a rotating tool provided with an attachment portion having a cylindrical outer circumferential surface to a mounting portion having a cylindrical inner circumferential surface of a spindle, comprising the steps of:

- making the outer diameter at normal temperatures of the attachment portion larger than the inner diameter at normal temperatures of the mounting portion; and

cooling the attachment portion and/or heating the mounting portion to make the outer diameter of the attachment portion smaller than the inner diameter of the mounting portion so as to fit the attachment portion into the mounting portion.

6. The method of claim 5, wherein at least the mounting portion of the spindle is made of metal.

7. The method of claim 5, wherein at least the attachment portion of the rotating tool is made of metal.

8. The method of claim 5, wherein the rotating tool comprises a metal hub and a thin annular cutting blade secured to the hub, the hub being provided with the attachment portion and the cutting blade containing diamond grains.